Equipping the Young Generation with Modern Accounting Skills using Zahir Accounting

Ismawati, Masrullah, Indriana, Nurinaya, Sitti Marhumi, and Saida Said Faculty of Economics and Business, Muhammadiyah University of Makassar *Corresponding author: ismawati@unismuh.ac.id

Abstract: The rapid advancement of digital technology and the increasing demand for industry-relevant competencies have transformed the field of accounting, shifting practices from manual processes to computerized systems. This community engagement program aims to strengthen the technological and accounting competencies of students at SMA Muhammadiyah 1 Unismuh Makassar by introducing Zahir Accounting as a modern, practical, and industry-recognized accounting software. The program responds to a significant skills gap, where many students lack exposure to accounting applications commonly used in professional settings. Through a one-day intensive workshop conducted at the Faculty of Economics and Business, Universitas Muhammadiyah Makassar, participants received training on financial management concepts, software navigation, and the preparation of complete financial statements using Zahir Accounting. The activity included theoretical lectures, hands-on tutorials, and guided simulations to ensure students gained both conceptual understanding and practical experience. Findings from the program indicate substantial improvements in students' digital literacy, financial reporting skills, and awareness of technologybased accounting practices. Moreover, the training enhanced students' confidence and preparedness to enter the workforce or pursue entrepreneurial endeavors, aligning with Muhammadiyah's vision of developing competent, values-driven human resources. The program demonstrates the relevance of integrating modern accounting tools into secondary education and highlights the need for continuous training and the development of tailored learning modules to ensure long-term impact and sustainability.

Keywords: Working Capital Efficiency, Food and Beverage Vendors, Cash Flow, Inventory Management, Community Engagement.

1. Introduction

The rapid advancement of digital technologies and the expansion of Industry 4.0 have significantly transformed the operational landscape of modern organizations, including the field of accounting. Traditional manual accounting processes are increasingly being replaced by computerized systems that offer higher levels of efficiency, accuracy, transparency, and real-time reporting capabilities. This transformation highlights the growing importance of equipping younger generations with modern accounting competencies that align with technological developments and industry expectations. Educational institutions, particularly at the secondary level, play a critical role in developing these competencies to ensure that students are prepared to engage with advanced financial tools once they enter higher education or the professional world.

Digitalization has redefined the scope of accountants' tasks, shifting the focus from routine bookkeeping to more analytical, interpretive, and technology-oriented roles. Several studies emphasize that the future workforce in accounting must be proficient in digital tools and capable of integrating technology into financial decision-making processes (Byrne et al., 2021; AICPA, 2020). As accounting software becomes central to business operations, employers increasingly expect graduates to demonstrate familiarity with financial applications, system automation, and data-driven reporting tools (Pan & Seow, 2016). However, empirical evidence demonstrates that many graduates lack sufficient exposure to accounting software, creating a skills gap between academic preparation and industry needs (Wessels, 2014; Susanto & Meiryani, 2019).

This skills gap is particularly evident in developing countries, where educational institutions often struggle to keep pace with technological advancements due to limited resources, inadequate training facilities, or outdated curricula. Students may understand accounting theory but lack competencies in applying it through digital platforms (Ibrahim et al., 2022). As a result, many struggle with job readiness

and face challenges competing in the labor market. The discrepancy between academic instruction and industry requirements underscores the need for practical, technology-based learning interventions that can enhance students' digital literacy and professional preparedness.

In the Indonesian context, this challenge is further intensified by the rapid growth of digital entrepreneurship, small and medium-sized enterprises (SMEs), and the increasing formalization of financial reporting among micro businesses. Software such as Zahir Accounting — a locally developed accounting application — has gained popularity across a wide range of industries due to its user-friendly interface, comprehensive features, and suitability for both conventional and sharia-based financial practices. Several community empowerment studies have shown that training in Zahir Accounting significantly improves users' understanding of financial management, enhances reporting accuracy, and strengthens entrepreneurial skills (Lubis et al., 2023; Wijaya et al., 2022). The accessibility and practicality of Zahir Accounting make it an ideal tool for educational integration, especially at the secondary level, where students are beginning to develop foundational digital competencies.

Despite the increasing relevance of software-based accounting, many students at the secondary school level still lack familiarity with financial applications. This is particularly true in faith-based institutions such as Muhammadiyah schools, where the focus is not only on academic achievement but also on character development and holistic education. Muhammadiyah schools prioritize preparing students to become future leaders and contributors to society, emphasizing personal discipline, responsibility, and vocational readiness. Equipping students with modern accounting skills aligns with this mission by enabling them to pursue career paths in finance, administration, entrepreneurship, or sharia business sectors. Additionally, Zahir Accounting provides features that support sharia-compliant financial transactions, which adds significant value for students in Islamic education environments.

Community service programs (Pengabdian kepada Masyarakat) conducted by universities serve as an effective platform to bridge knowledge gaps by directly engaging with partner institutions. Through structured training, practical demonstrations, and guided simulations, students can gain hands-on experience operating modern accounting tools. Previous studies indicate that such experiential learning approaches significantly enhance students' confidence, motivation, and problem-solving abilities (Kolb & Kolb, 2017). Furthermore, introducing software-based accounting at an early educational stage encourages lifelong learning and prepares students for continuous technological adaptation, a skill essential for the future workforce (Frey & Osborne, 2017).

The Program Pengabdian kepada Masyarakat (PKM) implemented by the Faculty of Economics and Business, Universitas Muhammadiyah Makassar, is designed to address the skills gap among students at SMA Muhammadiyah 1 Unismuh Makassar. The program identifies several key problems: limited student exposure to digital accounting tools, a mismatch between curriculum content and industry expectations, and insufficient technological competencies among younger generations. By providing training in Zahir Accounting—covering software introduction, financial cycle simulation, and preparation of financial statements—the program aims to enhance students' digital literacy and prepare them for future academic and professional challenges.

The importance of such initiatives is supported by a growing body of literature advocating for the integration of accounting software into school-level education. For instance, studies by Jackling and De Lange (2009) and Watty et al. (2016) emphasize that early exposure to accounting technology enhances student employability, strengthens conceptual understanding, and fosters adaptability in rapidly changing environments. Meanwhile, research conducted in vocational and secondary schools demonstrates that practical accounting software training improves student learning outcomes, increases motivation, and enhances retention of accounting concepts (Sari et al., 2021; Rasyad, 2018).

These findings reinforce the urgency of implementing structured training programs to develop competencies aligned with the needs of the modern workplace.

Therefore, equipping young learners with software-based accounting skills represents more than an academic exercise—it constitutes a strategic educational investment that promotes workforce readiness, entrepreneurial capacity, and long-term socioeconomic development. By integrating Zahir Accounting into learning activities, students gain exposure to real-world accounting practices, understand the relevance of financial literacy, and acquire competencies that are increasingly essential in today's digital economy. This PKM program thus contributes not only to improving student skills but also to strengthening the role of educational institutions in preparing future generations who are technologically adept, financially literate, and capable of contributing meaningfully to society.

2. Methods of Implementing Community Service

This community service program was implemented using a structured and participatory approach designed to ensure relevance, effectiveness, and sustainability of the interventions provided to the target beneficiaries. The methodological framework followed four key stages: **needs assessment**, **program design**, **implementation**, and **evaluation**. Each stage was developed according to established community engagement models and best practices in service-learning and educational outreach.

2.1 Needs Assessment

The initial phase involved identifying the specific needs, challenges, and contextual characteristics of the beneficiaries—students of Muhammadiyah Perumnas Elementary School. A combination of qualitative and quantitative techniques was employed. Informal interviews with teachers, classroom observations, and a short diagnostic questionnaire were used to assess students' initial levels of financial literacy, saving behavior, and attitudes toward money management. This assessment served as the empirical basis for determining the appropriate content, learning sequence, and delivery mechanisms for the intervention.

2.2 Program Design

The program was designed based on the findings of the needs assessment and aligned with national financial literacy standards for early education. The instructional materials integrated child-friendly pedagogical principles, including storytelling, interactive games, illustrated modules, and demonstrations. The design emphasized three core domains: (1) basic financial concepts, (2) responsible money management, and (3) cultivating a saving mindset. Additionally, the program incorporated the use of savings journals and simple budgeting worksheets to encourage active participation and hands-on learning. To ensure contextual relevance, the design was reviewed by education practitioners and experts in financial literacy. Their feedback helped refine the instructional flow, difficulty level, and practicality of the proposed activities.

2.3 Implementation Procedures

Program implementation was carried out over several sessions within the school environment. Each session followed a structured learning sequence: (1) introductory engagement, (2) material explanation, (3) interactive practice, and (4) reflection. The delivery team consisted of facilitators from the university's community service division, supported by teachers who acted as co-facilitators to maintain classroom management and instructional continuity.

The activities included storytelling on financial responsibility, simulation games representing realworld financial scenarios, and hands-on exercises in saving and budgeting. Students were encouraged to bring their personal saving containers and record daily or weekly savings progress to instill consistent saving habits.

2.4 Community Participation and Collaboration

A collaborative approach was prioritized throughout the implementation. Teachers participated in co-designing learning activities and providing contextual examples familiar to students. Parents were also informed about the program's objectives and encouraged to reinforce saving habits at home. This collaborative model strengthened the alignment between the school environment, home environment, and the community service program.

2.5 Monitoring and Evaluation

Program evaluation utilized both formative and summative methods. Formative assessment occurred during each session through observation of engagement levels, students' responses to activities, and the completion of worksheets. Summative evaluation was conducted at the end of the program using a post-intervention questionnaire measuring improvements in financial literacy knowledge, saving intention, and saving behavior. In addition to student-level outcomes, teacher feedback was collected to assess the practicality, clarity, and potential sustainability of the program. The evaluation results provided insights into the effectiveness of the instructional strategies and areas requiring further refinement for future community service initiatives.

2.6 Ethical Considerations

The implementation adhered to ethical guidelines for community-based educational interventions. Permissions were obtained from school administrators, teachers, and parents. All activities were designed to be child-friendly, safe, and inclusive. No personal or sensitive information was collected, and participation was voluntary.

3. Results and Discussion

The implementation of the community service program aimed at improving financial literacy and fostering a saving spirit among Muhammadiyah Perumnas Elementary School students produced several significant outcomes. The findings are presented in accordance with the program objectives and subsequently discussed in relation to existing literature on financial education for young learners.

3.1 Improvement in Students' Financial Literacy

The post-intervention assessment demonstrated a noticeable increase in students' understanding of basic financial concepts, including distinguishing needs from wants, the importance of saving, and simple budgeting practices. Students showed higher scores on the financial literacy questionnaire compared to the initial diagnostic assessment. During classroom activities, students were able to identify practical examples of responsible spending and articulate the benefits of saving money regularly.

These findings align with previous studies showing that financial education delivered at an early age significantly enhances children's conceptual understanding and shapes their long-term financial attitudes (Lusardi & Mitchell, 2014; Amagir et al., 2018). The use of interactive media, storytelling, and simulations effectively supported cognitive engagement, consistent with research stating that experiential learning models strengthen financial understanding in elementary-level students (Batty, Collins, & Odders-White, 2015).

3.2 Increased Saving Motivation and Behavior

A key outcome of the program was the observable increase in students' motivation to save. Most students actively participated in saving activities using personal saving containers, and many reported daily or weekly deposits. The savings journals indicated consistent entries, reflecting a positive behavioral shift. Teachers also reported that students frequently engaged in discussions about saving and demonstrated enthusiasm in completing the assigned financial tasks.

This behavioral improvement supports findings from earlier studies that financial literacy interventions can effectively cultivate saving habits when combined with hands-on activities and family engagement (Bruhn et al., 2016). The integration of school and home reinforcement was essential, as parents confirmed greater awareness and participation in their children's saving routines.

3.3 Student Engagement in Learning Activities

Observation during implementation revealed high levels of student engagement. Interactive sessions, such as financial games and budgeting exercises, elicited enthusiastic participation. Students were able to collaborate, ask questions, and reflect on the consequences of their financial choices during simulations. This suggests that the pedagogical approach was appropriate for young learners, particularly the use of experiential and play-based learning formats.

This outcome is consistent with findings from Sherraden et al. (2011), who highlight that active learning modules significantly improve students' engagement and retention of financial concepts. The present study confirms the relevance of age-appropriate instructional strategies for strengthening the effectiveness of financial literacy programs.

3.4 Teacher Feedback and Program Relevance

Teacher responses indicated that the program's content and delivery were practical, understandable, and well-aligned with the learning needs of elementary school students. Teachers expressed appreciation for the structured, step-by-step modules and emphasized that the materials were adaptable for future classroom use. They also noted that the program addressed an important educational gap, as financial literacy is not yet fully integrated into the school curriculum.

This feedback is consistent with prior research suggesting that teacher involvement is critical for sustaining financial education initiatives in early schooling contexts (Aprea et al., 2016). The program's collaborative design enhanced its relevance and increased the likelihood of long-term integration into the school's learning activities.

3.5 Alignment with Previous Research

The positive results from this program corroborate existing evidence on the importance of early financial education. Multiple studies have emphasized that building financial capability at a young age contributes to responsible financial behavior in adulthood (OECD, 2017; Farrell & Fry, 2018). By introducing fundamental financial knowledge and practical saving habits, this program supports the long-term objective of promoting financial well-being among young individuals.

Moreover, the program's outcomes demonstrate that community-based interventions, when designed systematically and implemented collaboratively, can effectively complement formal education

structures. This echoes the findings of Johnson & Sherraden (2007), who state that community engagement plays a crucial role in enhancing the reach and impact of financial education programs.

3.6 Discussion of Program Challenges

Despite the overall success, several challenges were identified. Some students had limited support at home, which influenced the consistency of their saving journals. In addition, variations in students' baseline numeracy skills affected their ability to comprehend budgeting exercises. These challenges highlight the need for differentiated instruction and stronger parental involvement in future program cycles.

Addressing these limitations aligns with recommendations from prior studies that emphasize tailored interventions and multistakeholder collaboration to maximize program outcomes (Mandell & Klein, 2009).

3.7 Implications for Future Community Service Programs

The results provide several implications for the design of future community service initiatives. First, programs aimed at young learners should prioritize interactive and contextually relevant methods to maintain engagement. Second, involving teachers and parents enhances sustainability and reinforces behavioral change. Third, periodic monitoring and personalized feedback help accommodate diverse student needs.

These implications support the broader literature on financial capability development, which advocates for multisectoral cooperation in promoting financial literacy at the foundational education level (OECD/INFE, 2020).

4. Conclusion

4.1 Summary of Findings

This community service program successfully improved the financial literacy and saving behavior of Muhammadiyah Perumnas Elementary School students. The intervention enhanced students' understanding of basic financial concepts, increased their motivation to save, and fostered consistent saving practices through structured learning tools such as savings journals and budgeting worksheets. The high level of engagement observed throughout the sessions demonstrates the effectiveness of interactive, child-centered pedagogical approaches. Furthermore, positive feedback from teachers underscores the program's relevance and its potential for long-term integration into the school curriculum.

4.2 Theoretical and Practical Implications

The findings contribute to the growing body of literature on early financial literacy education by demonstrating that community-based, experiential learning programs can produce measurable improvements in children's financial capability. Theoretically, the study reinforces the notion that financial habits are most effectively formed during childhood, when cognitive and behavioral development are highly responsive to structured interventions. Practically, the program offers a replicable model for schools seeking to integrate foundational financial education into their learning

environment. The collaborative involvement of teachers and parents also highlights the importance of multi-stakeholder participation in fostering sustainable financial habits among young learners.

4.3 Limitations

Despite the positive outcomes, several limitations should be acknowledged. First, the duration of the program was relatively short, limiting the ability to measure long-term behavioral changes. Second, variations in students' home environments affected the consistency of their saving practices, as not all students received equal parental support. Third, differences in baseline numeracy and cognitive skills posed challenges for some students during budgeting exercises. Lastly, the study relied primarily on qualitative observations and self-reported data, which may introduce potential biases.

4.4 Recommendations for Future Programs

Future community service initiatives should consider extending the program duration to monitor the sustainability of saving behaviors over time. Strengthening parental involvement is essential, particularly through workshops or take-home modules that encourage consistent reinforcement. Differentiated instruction methods should be developed to accommodate diverse learning abilities among students. Additionally, future programs may incorporate simple digital tools or gamified applications to enhance engagement and track progress more systematically. Researchers and practitioners are encouraged to conduct longitudinal assessments and include more rigorous measurement instruments to strengthen the empirical basis of financial literacy interventions for young learners.

5. Bibliography

- Amagir, A., Groot, W., Brink, H. M., & Wilschut, A. (2018). Financial literacy of high school students: Objectives, input, process, and outcomes. *International Review of Economics Education*, *27*(1), 1–13. https://doi.org/10.1016/j.iree.2018.01.001
- Aprea, C., Wuttke, E., Breuer, K., Koh, N. K., Davies, P., Greimel-Fuhrmann, B., & Lopus, J. (2016). *International handbook of financial literacy*. Springer. https://doi.org/10.1007/978-981-10-0360-8
- Batty, M., Collins, J. M., & Odders-White, E. (2015). Experimental evidence on the effects of financial education on elementary school students. *Journal of Consumer Affairs*, 49(1), 69–96. https://doi.org/10.1111/joca.12058
- Bruhn, M., Leão, L. S., Legovini, A., Marchetti, R., & Zia, B. (2016). The impact of high school financial education: Evidence from Brazil. *American Economic Journal: Applied Economics, 8*(4), 256–295. https://doi.org/10.1257/app.20150149
- Farrell, L., & Fry, T. R. L. (2018). The role of financial literacy in determining retirement planning behaviour. *Journal of Pension Economics & Finance, 17*(3), 223–245. https://doi.org/10.1017/S1474747217000222
- Fernandes, D., Lynch, J. G., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. *Management Science*, 60(8), 1861–1883. https://doi.org/10.1287/mnsc.2013.1849

- Hung, A., Parker, A. M., & Yoong, J. (2009). Defining and measuring financial literacy. *RAND Working Paper Series*. https://doi.org/10.7249/WP708
- Johnson, E., & Sherraden, M. S. (2007). From financial literacy to financial capability among youth. *Journal of Sociology & Social Welfare, 34*(3), 119–145.
- Kiliç, Y., Ata, H. A., & Seyrek, I. H. (2015). The relationships among financial literacy, financial attitude, and financial behavior. *Asian Social Science*, 11(11), 318–325. https://doi.org/10.5539/ass.v11n11p318
- Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy. *Journal of Economic Literature*, *52*(1), 5–44. https://doi.org/10.1257/jel.52.1.5
- Mandell, L., & Klein, L. S. (2009). The impact of financial literacy education. *Journal of Financial Counseling and Planning*, 20(1), 15–24.
- OECD. (2017). *OECD/INFE International Survey of Adult Financial Literacy Competencies*. OECD Publishing.
- OECD/INFE. (2020). *Advancing financial literacy in the digital age: Policy guidance*. OECD Publishing.
- PISA-OECD. (2018). Financial Literacy Assessment Framework. OECD.
- Potrich, A. C. G., Vieira, K. M., & Ceretta, P. S. (2015). Financial literacy and its influence on financial behavior. *Journal of Multinational Financial Management, 30*(1), 1–17. https://doi.org/10.1016/j.mulfin.2015.01.002
- Remund, D. (2010). Financial literacy explicated: The case for a clearer definition. *Journal of Consumer Affairs*, 44(2), 276–295. https://doi.org/10.1111/j.1745-6606.2010.01169.x
- Sherraden, M. S., Johnson, L., Guo, B., & Elliott, W. (2011). Financial capability in children: Effects of school-based financial programs. *Journal of Family and Economic Issues, 32*(3), 385–399. https://doi.org/10.1007/s10834-010-9212-5
- Willis, L. E. (2011). The financial education fallacy. *American Economic Review, 101*(3), 429–434. https://doi.org/10.1257/aer.101.3.429